Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

N.G.C.	α	δ	Description
7354	22 37	+ 60 46	An irregular oval ring with fainter material in disk outside and within the ring; has central star. No outer nebulosity.
7662	23 21	+ 41 59	Very bright and sharply defined. Oval, with very minute projections like ansæ. No traces of outer nebulosity.

So far as this list goes, then, the evidence is strong that the "typical" planetary nebula is self-contained, without outlying remnants of nebulosity, except in the frequent occurrence of *ansæ,* which may indicate Saturn-like rings.

PLANETARY PHENOMENA FOR SEPTEMBER AND OCTOBER, 1912.

By Malcolm McNeill.

PHASES OF THE MOON, PACIFIC TIME.

Last Quarter..	Sept. 4,	5h 23m A.M.	Last Quarter ..	Oct. 3,	12h 48m P.M.
New Moon ...	" 10,	7 48 P.M.	New Moon	" 10,	5 41 A.M.
First Quarter..	" 17,	11 55 P.M.	First Quarter ..	" 17,	6 6 P.M.
Full Moon	" 26,	3 34 A.M.	Full Moon	" 25,	6 30 P.M.

The third of the eclipses of the year will occur on the night of September 25th-26th. It is a partial eclipse of the Moon and will be visible generally throughout the United States. The circumstances of the eclipse are as follows:—

Moon enters penumbra ...	Sept. 26,	1h 15m A.M.	Pacific time
Moon enters shadow	" 26,	3 3 A.M.	" "
Middle of eclipse	" 26,	3 45 A.M.	" "
Moon leaves shadow......	" 26,	4 26 A.M.	" "
Moon leaves penumbra....	" 26,	6 14 A.M.	" "

The maximum obscuration is only about one eighth of the Moon's diameter.

The fourth and last eclipse of the year is a total eclipse of the Sun on October 10th. It will not be visible in the United States, except in the extreme southeast, where it may be seen as a very small partial eclipse just after sunrise. The line of totality runs across South America from Equador, through Brazil and ends about half-way between Madagascar and the south pole. The maximum duration of totality is a little less than two minutes.

The autumnal equinox, the time when the Sun crosses the equator from north to south, occurs September 23d, 2 A. M., Pacific time.

Mercury is a morning star on September 1st, having passed inferior conjunction on August 22d. It reaches greatest west elongation September 7th, passing superior conjunction and becoming an evening star on October 3d. It will remain as an evening star until November 19th. The west elongation of September 7th is a little less than 18°, a much smaller greatest west elongation than the average, due to the fact that perihelion comes on September 11th; but during the first half of September the planet rises more than an hour before sunrise and may be seen without much trouble in the morning twilight. During October, while the planet is an evening star, it remains too near the Sun for naked-eye view. It is in conjunction with *Mars* on the evening of October 13th, the least distance being about one third of the Moon's apparent diameter.

Venus is an evening star, gradually increasing its apparent distance from the Sun in their common eastward motion. On September 1st it sets not quite three quarters of an hour after sunset and this interval gradually increases to about an hour and one half by the end of October; so that it will begin to be a conspicuous object in the early evening sky, although not nearly as bright as it will be during the winter. During the night of September 8th it will be in conjunction with *Mars,* the latter being about 30′ to the south.

Mars remains an evening star throughout the period, but is too near the Sun for easy observation. On September 1st it sets a little less than an hour after sunset, and this interval has diminished to about five minutes by October 31st. As it is only a little brighter than the pole star, a telescope will be needed to make it visible at any time during the two months. It reaches its maximum distance from the Earth, 239 millions of miles on October 8th, nearly a month before conjunction. It has been diminishing its distance from the Sun since early June, when it passed aphelion. Its conjunctions with *Mercury* and *Venus* have already been noted.

Jupiter is still in the western sky in fair position for observation. On September 1st it does not set until about 10:30 P. M.

and on October 31st it remains above the horizon until about two hours after sunset. It is in the constellation *Scorpio* and moves eastward among the stars about 10° during the two months. It is still in the vicinity of *Antares,* but moves away from it eastward on a line somewhat north of the star. It is also somewhat fainter than it was in May and June.

Saturn is moving around toward a position suitable for evening observation. On September 1st it rises a little before 10:30 P. M. and on October 31st it rises shortly before 6:30. It is in the constellation *Taurus,* and during September is nearly stationary, moving a little eastward until September 16th and then moving a little westward. During October it will move a little more than one degree westward. It will be a little brighter and toward the end of October is about one magnitude brighter than the average first magnitude star.

Uranus sets at a little after 2 A. M. on September 1st and shortly after 10 P. M. on October 31st. It remains nearly stationary in the constellation *Capricorn* about 3° or 4° west of the fifth magnitude stars π and ρ *Capricorni.*

Neptune rises at about 2 A. M. September 1st and at about 10 P. M. on October 31st. It is moving slowly westward in the constellation *Gemini.*